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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/817,297	04/02/2004	Gregory H. Bearman	52316/JWP/C766	1886

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EXAMINER

LEARY, LOUISE N

ART UNIT	PAPER NUMBER
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1655

DATE MAILED: 01/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/817,297

Applicant(s)

BEARMAN ET AL.

Examiner

Louise N. Leary

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-25 is/are allowed.
- 6) ☒ Claim(s) 26-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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1. Claims 1-28 are pending in this application.
2. The Terminal Disclaimer filed November 14, 2005 has been accepted and recorded in this application. The Terminal Disclaimer filed November 14, 2005 is being held in abeyance.
3. The double patenting rejection of claims 1-25 under 35 USC 101 is moot in view of the amendment filed November 14, 2005.
4. The rejection of claims 1-25 under the judicially created doctrine of obviousness-type double patenting as unpatentable over claims 1-33 of US Patent No. 6,403,332 is moot in view of the Terminal Disclaimer filed November 14, 2005.

5. OBJECTION TO SPECIFICATION:

The subject matter of this application admits of illustration by a drawing to facilitate understanding of the invention. Applicant is required to furnish a drawing under 37 CFR 1.81(c). No new matter may be introduced in the required drawing. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d).

Claim 26 recites “[A laser scanning microscope for monitoring cellular activity...comprising: a laser...; a tunable filter...; a plurality of detectors...; and an analyzer...]”

However, none of the figures describe a laser scanning microscope comprising “a *plurality of detectors*”. It is noted that “Figure 3” describes a laser scanning microscope with “a detector”, but, is silent regarding “a plurality of detectors”.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wachman et al (Applied Optics, Vol. 35, No. 25, pages 5220-5226, (September 1996) in combination with Wokosin et al (IEEE J. of Selected Topics in Quantum Electronics, Vol. 2, No. 4, pages 1051-1065, (December 1996).

Wachman et al disclose a microscope comprising an acousto-optic tunable filter, an array detector and a multichannel analyzer. See pages 5220-5226. Regarding “a laser” instant claim limitation, Wachman et al disclose the microscope performs multispectral digital imaging of “fluorescent actin fibers in cells” of biological samples. See page 5220. Wachman et al disclose a microscope as claimed except for (i)

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implicitly addressing “a laser” and (ii) “analyzer uses a linear unmixing operation” limitations.

With respect to addressing “a laser” in the instant microscope, Wokosin et al disclose a microscope for “multiphoton excitation fluorescence laser scanning microscopy”. See the Abstract on page 1051. Regarding “analyzer uses a linear unmixing operation” limitation in the instant claims, Wokosin et al disclose (i) a fluorescent microscope comprising means that “allow the separation of excitation (a-b-c) from emission (d-e-f) beams.” and (ii) “[Visualization of specific probes within a biological specimen is possible with the union of optical sectioning and fluorescence microscopy.]” See pages 1051-1052. Thus, Wokosin et al address a fluorescent microscope with a laser and analyzer using linear unmixing.

Hence, Wachman et al disclose the invention claimed except for implicitly addressing “a laser” and (ii) “analyzer uses a linear unmixing operation” limitations provided by Wokosin et al before this invention was made. Alternatively, the invention as claimed was deemed obvious to skilled artisans before the conception of this invention in view of the combined Wachman et al and Wokosin et al disclosures.

Therefore, it would have been obvious to one having ordinary skill in this art at the time this invention was made to provide the invention claimed because Wachman et al disclose the invention claimed except for implicitly addressing the limitations “a laser” and (ii) “analyzer uses a linear unmixing operation” provided by Wokosin et al before this invention was made which renders the invention as claimed obvious.

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7. The Tarshiro et al reference (US 5,946,090) has been cited to further show the state of this art.

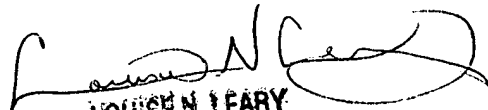
8. Claims 1-25 are allowable over the prior art of record.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louise N. Leary whose telephone number is 571-272-0966. The examiner can normally be reached on Monday to Friday from 10 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey, can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



LOUISE N. LEARY  
PRIMARY EXAMINER

January 11, 2006